

In the Claims

1. (Original) An intracorporeal probe for at least one of examination and therapy of body cavities in the human or animal body, said probe being in the form of a capsule which can be introduced into the body without external connection elements, and said probe having at least one light-emitting element and at least one light-receiving element, wherein said at least one light-receiving element receives light in another wavelength range than that in which said at least one light-emitting element emits light;[[.]]

wherein said capsule contains a position-detecting element whose position can be determined from outside the body and which is capable to detect at least one of a position and an orientation of said probe with respect to axes of said probe relative to said body cavity.

2. (Original) The probe of claim 1, wherein said light of said at least one light-emitting element has a shorter wavelength than said light which can be received by said at least one light-receiving element.

3. (Original) The probe of claim 1, wherein said at least one light-emitting element has an emission characteristic covering the entire solid angle.

4. (Original) The probe of claim 1, wherein a plurality of light-emitting elements are arranged in said capsule in such a way that the light emission covers the entire solid angle.

5. (Original) The probe of claim 1, wherein said at least one light-emitting element is a light-emitting diode.

6. (Original) The probe of claim 5, wherein said light-emitting diode emits in the blue frequency range.
7. (Original) The probe of claim 1, wherein said at least one light-receiving element is designed in such a way that it receives light from the entire solid angle range.
8. (Original) The probe of claim 1, wherein a plurality of light-receiving elements are arranged in said capsule in such a way that light can be received from the entire solid angle range.
9. (Original) The probe of claim 1, wherein an optical filter element is arranged on at least one of said at least one light-emitting element and said at least one light-receiving element.
10. (Original) The probe of claim 1, wherein said capsule contains at least one further light-receiving element in the form of an image sensor for the purpose of receiving a visual image.
11. (Original) The probe of claim 10, wherein said capsule contains at least one further light-emitting element which emits white light.
12. (Original) The probe of claim 1, wherein said capsule contains a transmitter element for the purpose of emitting signals from said probe to outside the body.

13. (Original) The probe of claim 12, wherein said capsule contains a signal-preprocessing element which forwards an opto-electrical signal originating from said at least one light-receiving element to said transmitter element.

14. (Original) The probe of claim 1, wherein said capsule contains a signal storage element for the purpose of storing signals of said at least one light-receiving element.

15. (Cancelled)

16. (Original) The probe of claim 1, wherein said position-detecting element is designed as a coil system whose position can be detected via an external magnetic field detector.

17. (Original) The probe of claim 1, wherein said capsule contains a positioning element which can be controlled from outside the body in order to position said probe.

18. (Original) The probe of claim 1, wherein said capsule contains at least one of an energy supply unit and an element for receiving electromagnetic energy irradiated from outside the body.

19. (Original) The probe of claim 1, wherein fluorescent/luminescent marker substances are arranged on said capsule.

20. (Original) The probe of claim 1, wherein said capsule contains at least one luminescent substance which can be excited by excitation from outside the body and emits light through a capsule wall.

21. (Original) The probe of claim 1, wherein said capsule contains a reservoir for at least one of therapeutic substances and diagnostic substances which are dispensed inside the body by said probe.

22. (Original) The probe of claim 1, wherein an ultrasound transmitter/receiver element for ultrasound imaging is arranged in said probe.

23. (Original) The probe of claim 1, wherein said probe has at least one line leading to outside the body for the purpose of exchanging at least one of information, energy and substances.

24. (Original) The probe of claim 1, wherein said probe is designed as an implant and has a capsule wall formed with long-term biocompatible and sterilizable material.

25. (Original) The probe of claim 1, wherein said probe has a fully enclosing transparent capsule wall.

26. (Original) The probe of claim 1, wherein said capsule contains at least one element emitting therapeutic light, said element emitting light for photodynamic therapy principally in the wavelength range in which an absorption peak of a photosensitizer introduced into the body lies.

27. (Original) The probe of claim 26, wherein said at least one element emitting therapeutic light is arranged in said capsule in such a way that the whole solid angle is illuminated homogeneously.

28. (Original) The probe of claim 1, wherein said capsule contains at least one element emitting therapeutic light, said element emitting light for photodynamic therapy principally in the wavelength range in which an absorption peak of a photosensitizer introduced into the body lies, and wherein said at least one light-receiving element and said at least one element emitting therapeutic light are oriented in such a way that therapeutic light can be emitted locally in the solid angle in which a fluorescent signal is received by said at least one light-receiving element, which signal is produced by excitation light emitted by said at least one light-emitting element.

29. (Original) The probe of claim 1, wherein said capsule contains at least one element emitting therapeutic light, said element emitting light for photodynamic therapy principally in the wavelength range in which an absorption peak of a photosensitizer introduced into the body lies, and wherein said at least one element emitting therapeutic light is designed as a light-emitting diode with a wavelength in the range of about 590 to about 650 nm.

30. (Cancelled)

31. (New) An intracorporeal probe for at least one of examination and therapy of body cavities in the human or animal body, said probe being in the form of a capsule which can be introduced into the body without external connection elements, and said probe having at least one light-emitting element and at least one light-receiving element, wherein said at least one light-receiving element receives light in another wavelength range than that in which said at least one light-emitting element emits light;
wherein said capsule contains at least one luminescent substance which can be excited by excitation from outside the body and emits light through a capsule wall.

32. (New) An intracorporeal probe for at least one of examination and therapy of body cavities in the human or animal body, said probe being in the form of a capsule which can be introduced into the body without external connection elements, and said probe having at least one light-emitting element and at least one light-receiving element, wherein said at least one light-receiving element receives light in another wavelength range than that in which said at least one light-emitting element emits light; wherein said probe has a fully enclosing transparent capsule wall.

33. (New) An intracorporeal probe for at least one of examination and therapy of body cavities in the human or animal body, said probe being in the form of a capsule which can be introduced into the body without external connection elements, and said probe having at least one light-emitting element and at least one light-receiving element, wherein said at least one light-receiving element receives light in another wavelength range than that in which said at least one light-emitting element emits light; wherein said capsule contains at least one element emitting therapeutic light, said element emitting light for photodynamic therapy principally in the wavelength range in which an absorption peak of a photosensitizer introduced into the body lies.

34. (New) The probe of claim 33, wherein said at least one element emitting therapeutic light is arranged in said capsule in such a way that the whole solid angle is illuminated homogenously.